

CONFERENCE PAPER 4

;
;

© 2021, THE MEALS4NCDS PROJECT



This work is licensed under the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/legalcode>), which permits unrestricted use, distribution, and reproduction, provided the original work is properly credited.

Cette œuvre est mise à disposition selon les termes de la licence Creative Commons Attribution (<https://creativecommons.org/licenses/by/4.0/legalcode>), qui permet l'utilisation, la distribution et la reproduction sans restriction, pourvu que le mérite de la création originale soit adéquatement reconnu.

IDRC Grant/ Subvention du CRDI: 108983-001-Measuring the healthiness of Ghanaian children's food environments to prevent obesity and non-communicable diseases

How healthy are our supermarkets? Availability of healthy and unhealthy, ultra-processed foods in supermarkets of selected districts of Greater Accra region, Ghana.

Akosua Pokua Adjei¹, Gideon Amevinya¹, Wilhemina Quarpong¹, Akua Tandoh¹, Richmond Aryeetey¹, Michelle Holdsworth², Charles Agyemang³, Francis Zotor⁴, Matilda E. Laar⁵, Kobby Mensah⁶, Phyllis Addo¹, Dennis Laryea⁷, Gershim Asiki⁸, Daniel Sellen⁹, Stefanie Vandevijvere¹⁰, Amos Laar^{*1}

¹Department of Population, Family & Reproductive Health, School of Public Health, University of Ghana, Legon, Accra, Ghana.

²French National Research Institute for Sustainable Development (IRD), NUTRIPASS Unit: IRD-Univ Montpellier-SupAgro, Montpellier, France

³Department of Public & Occupational Health, Amsterdam UMC, University of Amsterdam, Amsterdam, Netherlands.

⁴Department of Family and Community Health, University of Health and Allied Sciences, Ho, Ghana

⁵Department Family and Consumer Sciences, School of Agriculture, University of Ghana, Accra Ghana.

⁶Department of Marketing & Entrepreneurship, University of Ghana Business School, University of Ghana, Legon, Accra.

⁷Non-Communicable Disease Programme, Ghana Health Service, Accra, Ghana

⁸African Population and Health Research Center, Nairobi, Kenya

⁹Department of Nutritional Sciences, University of Toronto, Toronto, Canada.

¹⁰Sciensano, Service of lifestyle and chronic diseases, Brussels, Belgium

*Correspondence: alaar@ug.edu.gh

Introduction

Intake of unhealthy foods is linked to the onset of obesity and diet-related non-communicable diseases. Availability of unhealthy foods can influence preference, choice, purchasing, and consumption of such foods^[1]. This study determined the healthiness of foods sold at supermarkets located in six districts selected for the Measurement, Evaluation, Accountability, and Leadership Support for NCDs Prevention Study (MEALS4NCDs)^[2]. The MEALS4NCDs Study is being implemented in the Greater Accra Region (GAR) of Ghana.

Methods or approach

The study deployed a multistage sampling approach to select six administrative districts in the GAR. All supermarkets located in these six districts were eligible to participate in the study. Of 98 identified, 62 consented. An in-store measurement tool was used to determine the shelf length/breadth of foods available in the supermarkets – consistent with previous studies^[3,4]. Digital photographs of all food products in-store were also taken. The foods were categorized according to the extent and nature of processing using the NOVA classification system^[5].

Results

The 62 supermarkets assessed had total floor area ranging from 133- 1,669m², with an average(SD) floor area of 119m²(161m²). Total shelf space occupied by food was 239,833m²; average(SD) of 3932(5942). 86.2% of the total shelf space was allotted to unhealthy food categories, and the remainder (13.8%), to healthy foods. Refined grains/refined grain products were the most available food groups occupying an average(SD) of 588m²(1017m²) or 15% of the total shelf space occupied by food. This was followed by cakes, biscuits, and cookies, 471m²(623m²) or 12% of total shelf space. The least available food group–unprocessed staples, was found in only one low poverty headcount district and occupied an average(SD) of 0.6m²(5m²) of the total shelf space occupied by food. Poverty headcount refers to the proportion of population living below the national poverty line. In 4/6 districts (with low-to-medium poverty headcount), fresh meat, fish or poultry were not available in any supermarket. Supermarkets in two districts with low-to-medium poverty headcount designation did not sell fresh fruits or fresh/unsalted canned vegetables. 5816/8,142–representing 71.4% of all food products shelved were ultra-processed foods; while 14.6% were unprocessed or minimally processed. By supermarket, the ratio of unhealthy-to-healthy foods ranged from 2 to 56 with an average(SD) of 9(9).

Conclusions

This study demonstrates the extensive availability of unhealthy/ ultra-processed foods in supermarkets found within the selected districts. For every healthy food, there were nine unhealthy ones. Towards a healthier supermarket food environment, the Food and Drugs Authority, in partnership with other stakeholders need to institute measures that improve availability of healthy foods within supermarkets.

References

1. Olstad, D. L., Goonewardene, L. A., McCargar, L. J., & Raine, K. D. (2015). If we offer it, will children buy it? Sales of healthy foods mirrored their availability in a community sport, commercial setting in Alberta, Canada. *Childhood Obesity*, 11(2), 156-164.
2. Laar, A., Kelly, B., Holdsworth, M., Quarpong, W., Aryeetey, R., Amevinya, G., Tandoh, A., Charles, A., Zotor, F., Laar, M.E., Mensah, K., Laryea, D., Asiki, G., Pradeilles, R., Sellen, D., L'Abbe, M. & Vandevijvere, S. (2020). Providing Measurement, Evaluation, Accountability, and Leadership Support for NCDs Prevention in Ghana: Adapting the INFORMAS Approach. Preprint
3. Farley TA, Rice J, Bodor JN, Cohen DA, Bluthenthal RN, Rose D. Measuring the food environment: shelf space of fruits, vegetables, and snack foods in stores. *J Urban Health*. 2009;86:672–82.
4. Vandevijvere, S., Waterlander, W., Molloy, J., Nattrass, H., & Swinburn, B. (2018). Towards healthier supermarkets: a national study of in-store food availability, prominence and promotions in New Zealand. *European journal of clinical nutrition*, 72(7), 971-978.
5. Monteiro, C. A., Cannon, G., Lawrence, M., Costa Louzada, M. L. & Pereira Machado, P. (2019). Ultra-processed foods, diet quality, and health using the NOVA classification system. Rome, FAO.